

PROCEEDINGS
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DESCRIPTIONS OF NEW SQUIRRELS FROM MEXICO.

BY E. W. NELSON.

In 1651 Hernandez recorded the presence of flying squirrels in Mexico. The next record south of the United States was in 1861, when Tomes included it in his list of mammals taken by Salvin at Dueñas, Guatemala (P. Z. S., 1861, p. 281). In 1892 I saw a pair of mounted specimens in the museum of the State College at the city of San Luis Potosi. These were recorded as having been taken near Jilitla, in San Luis Potosi. During all of our subsequent work in Mexico, until the present season, whenever in suitable country, both Goldman and I have kept a constant but unsuccessful lookout for these animals. During April, 1904, while in the highlands of Chiapas, near the Guatemala border, Goldman was fortunate enough to secure a good pair of adult flying squirrels with skulls. In view of the striking differences between the Mexican and United States species of *Sciurus* it was a great surprise to find this isolated representative of *Sciuropterus* very closely related to forms found in the United States.

Both the forms of *Sciurus* described below are smaller and paler than their most closely-related subspecies occupying adjoining territory.

Sciuropterus volans goldmani subsp. nov.

MEXICAN FLYING SQUIRREL.

Type No. 132,833, adult male, U. S. National Museum, Biological Survey Collection. From 20 miles southeast of Teopisca, Chiapas, Mexico, collected April 8, 1904, by E. A. Goldman. Original No. 16,667.

Geographic distribution.—Highlands of Chiapas and Guatemala.

Subspecific characters.—Much like *S. volans querceti*, but top of nose white; postocular are a much darker; and underside of flying membrane deep ochraceous buff.

Description of type.—Top of head and upper parts of body nearly uniform reddish brown, slightly more reddish than in *Sciuropterus volans querceti*; upper surface of flying membrane blackish slate color; top of tail cinnamon brown; tops of fore-feet dingy whitish; tops of hind-feet dusky, toes dingy whitish; top and sides of nose, lower part of cheeks, and sides of neck to back of ears whitish; area between eye and ear dusky, shading down into dingy grayish brown on cheeks and sides of head below ears; supraloral spot whitish; underside of neck and body white with a pale suffusion of buff; underside of flying membrane deep ochraceous buff; underside of tail dingy buff. Ears large and broad.

Measurements of type.—Total length, 237; tail vertebræ, 112; hind foot, 30.

Skull characters.—Skull scarcely distinguishable from that of *S. volans querceti*.

Measurements of skull of type.—Basilar length of Hensel, 28; interorbital width, 7.5; zygomatic width, 22; greatest width of braincase, 17.5; length of nasals, 10.2; width of rostrum, 6; depth of rostrum, 7.

General notes.—This flying squirrel is so closely related to *S. volans* that I have felt constrained to consider it a subspecies although its range is completely isolated by some hundreds of miles of intervening desert country from its nearest relative to the north. The resemblance between the Florida and Mexican flying squirrels is remarkably close; the white top to the nose, slightly more reddish upperparts, and rich fulvous on the underside of the flying membrane are about the only characters that distinguish the Chiapas animal. The lack of contrast between the top of the head and back, the dark postocular area, and the white nose separate it from Texas specimens.

Sciurus poliopus senex subsp. nov.

MICHUACAN SQUIRREL.

Type No. 126,208, adult female, U. S. National Museum, Biological Survey Collection. From La Salada, 40 miles south of Uruapan, southern Michoacan, Mexico. Collected March 14, 1903, by E. W. Nelson and E. A. Goldman. Original No. 16,127.

Geographic distribution.—Below 4,000 feet in the valley of the Balsas River (and tributaries) in central and southern Michoacan and adjacent parts of northwestern Guerrero.

Zonal distribution.—Arid tropical.

Subspecific characters.—Most like *Sciurus p. nemoralis*, but upperparts paler or lighter gray, nuchal patch more clearly defined yellowish; rump patch more obsolescent.

Description of type.—Top of head iron-gray; nape patch ochraceous mixed with black; rest of back pale grizzled gray with slight mixture of ochraceous grizzling posteriorly, but not sufficient to form a rump patch; sides of body paler than back; top of tail black with heavy wash of white; tops of feet white; underparts of body white; median area on underside of tail dull gray bordered with blackish; outer edge of tail white.

Measurements of type.—Total length, 543; tail vertebræ, 275; hind foot, 69.

Skull characters.—Rostrum heavier and braincase narrower than in *S. p. nemoralis*, with braincase more abruptly constricted posteriorly and occipital diameter shorter.

General notes.—Compared with a similar series of typical *S. p. nemoralis* (the most closely allied form) the present subspecies is distinctly lighter colored, the yellowish nape patch averages decidedly better defined, and the rump patch is scarcely or not at all appreciable in most specimens and poorly defined when present. In all except melanistic specimens the pale grayish wash on the back and sides is underlaid with buffy or yellowish similar in shade to the nape patch and varying in amount so that in some specimens it is scarcely distinguishable, but it usually shows through the overlying gray sufficiently to give a pale yellowish suffusion. As might be supposed from the climatic differences the tail is decidedly slender or less bushy than in *nemoralis* and the pelage much thinner and shorter haired. Melanism sometimes occurs in this form, as attested by one specimen taken.

***Sciurus poliopus perigrinator* subsp. nov.**

PUEBLA SQUIRREL.

Type No. 70,279, adult female, U. S. National Museum, Biological Survey Collection. From Piaxtla, Puebla, Mexico. Collected November 25, 1894, by E. W. Nelson and E. A. Goldman. Original No. 7104.

Geographic distribution.—Southern Puebla, northwestern Oaxaca and adjacent parts of Guerrero.

Zonal distribution.—From upper Sonoran to arid tropical.

Subspecific characters.—Most like *Sciurus p. hernandezii* but more brightly colored; rump and nape patches well marked; underside of tail rusty red almost as in typical *poliopus*.

Description of type.—Top of nose and fore part of crown iron-gray; back part of crown and nape marked with a dark ochraceous buffy patch mixed with black; rest of upperparts to rump light iron-gray, underlaid and mixed with ochraceous; sides of body paler than back; rump with a distinct ochraceous patch mixed with black; tops of feet white; upper-side of tail black with a strong wash of white and underlaid basally with rusty ochraceous; underparts of body rich cream-buff; underside of tail

with broad median area bright ochraceous bordered with black and edged with white.

Measurements of type.—Total length, 535; tail vertebræ, 273; hind foot, 69.

Skull characters.—Skull smaller and lighter than in *S. p. hernandezi*; bullæ smaller; outer end of nasals broadened, producing an inflated tip.

Number of specimens examined.—Five.

General notes.—The brighter colors of the nape and rump patches, the paler back, the reddish color of basal parts of hairs on tail, and the buffy underparts make a combination of characters which easily distinguish this form from its allies. One of these five specimens before me has the underparts pure white; and a half-grown specimen has the underside of the tail dull yellowish gray. The rump and nape patches while distinct are scarcely darker than the underside of the tail.